



# MARCO UP Series Pump Disassembly

This guide is a disassembly for a MARCO UP12 electric pump, with bronze gears. This guide also applies for every other MARCO UP series pump. You may use this to change the brush holder or check the inside for issues.

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## INTRODUCTION

If you need to replace some pieces (like the brushholder circuit), this guide will help you disassembling the pump.

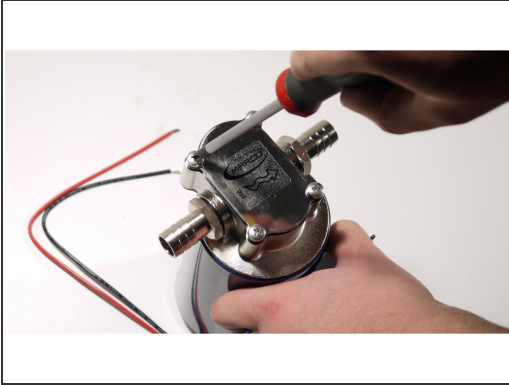
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### TOOLS:

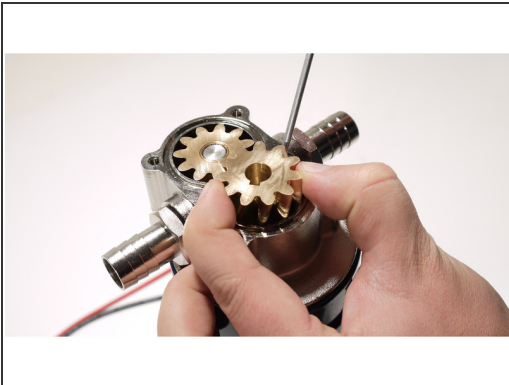
- [Phillips #2 Screwdriver](#) (1)
  - [2.5 mm Flathead Screwdriver](#) (1)
  - [8mm Socket Wrench Screwdriver](#) (1)
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## Step 1 — Remove the top plate



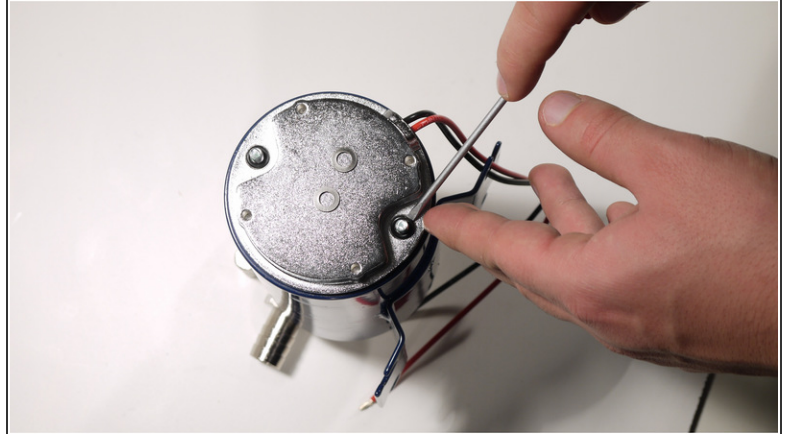
- Put the pump on the table, heading up.
- Unscrew the 4 screws with the screwdriver.
- Remove the O-ring.

## Step 2 — Remove the Gears



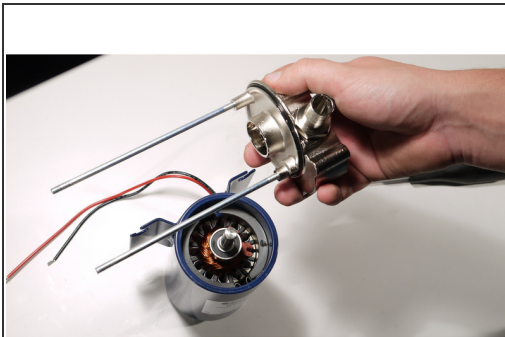
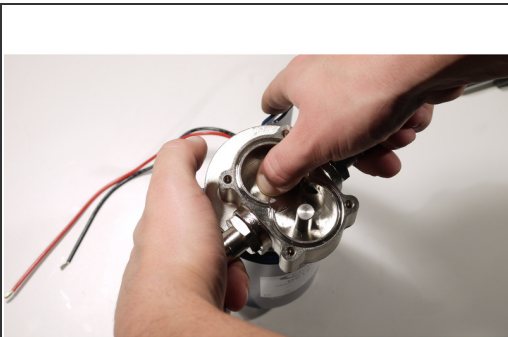
- Using the flat head screwdriver apply some force between two teeth and try to lift the gear. Use the other hand or a plier (usually you don't need it) to take the first gear away.
  - Remove the second gear.
  - Remove the key, with the help of the flat head screwdriver: try to raise it from the bottom.
- i Don't forget to remove the key!** If you do, you won't be able to continue.

### Step 3 — Unscrew the nuts on the back



- Unscrew the nuts on the back using the socket wrench screwdriver.
- Take away the washer and the little O-rings.

### Step 4 — Lift the pump's body

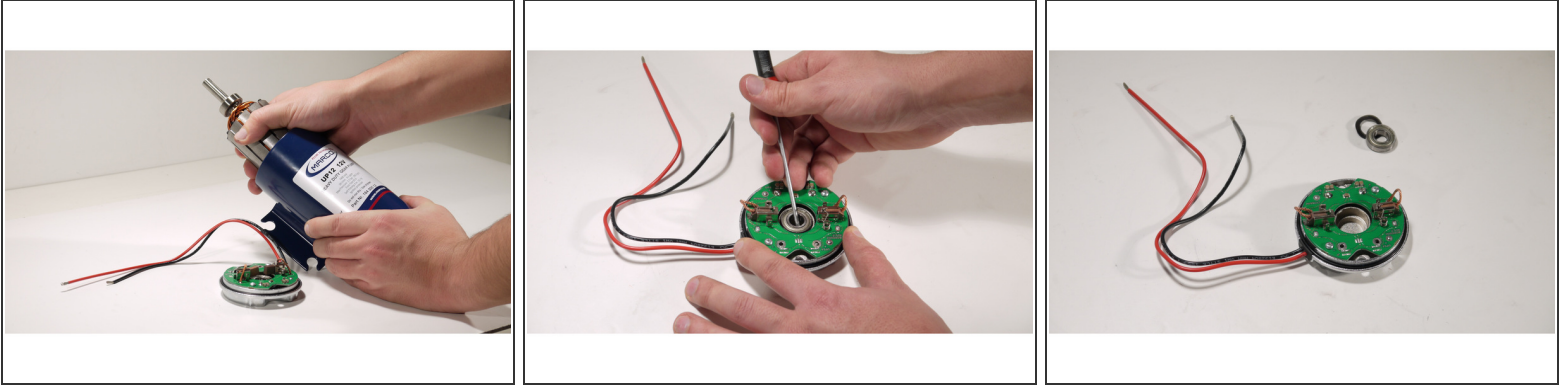


- Keep your thumb on the shaft and lift the pump's head pulling from the hosefittings.
- Then, again, keep your thumb on the shaft and lift the motor's stator.

**⚠ Be careful:** the magnetic field is strong, your finger may squeeze between the parts!



## Step 5 — Take out the rotor from the stator case



- If the rotor gets stuck in the stator, push it from the bottom and pull it from the other side.
- You need to have them separated, to assembly those back again.
- You can now pull out the bearing and the spring from the back plate, using the flat screwdriver or the rotor shaft.

## Step 6 — The disassembly is complete



- These are the pieces that you've just disassembled.

If you need to assemble the pump, use this guide: [Marco UP Series Electric Pump Assembly](#)

